

ABSTRACT

A frame structure that is optimized for providing variable high data rates. Superframes, each comprised of a predetermined number of frames, carry data communications at one or more variable data rates. Each data customer is allotted one or more frames or portions of frames within the superframe, called sub-frames, as is needed to deliver the data communication. The allocation for the data customers is not fixed, but varies as the data rate varies over time, and also to meet the needs of the data customers. Each high speed data frame includes a self-indication of the contents of the high speed data frame. This self-indication identifies one or more data users serviced by the high speed data frame and the data rate of the data contained in the high speed data frame. Each high speed data frame may service multiple user terminals, with the high speed data frame subdivided into two or more subframes. In this case, an additional self-indication may be provided to identify an intended user terminal and a corresponding data rate for the second user terminal. The frame structure may be applied to service ATM cells.